

Glossary

USFWS



Mason Neck Refuge

Glossary (including list of acronyms and abbreviations)

Glossary

accessibility	the state or quality of being easily approached or entered, particularly as it relates to complying with the Americans with Disabilities Act (ADA)
accessible facilities	structures accessible for most people with disabilities without assistance; facilities that meet Uniform Federal Accessibility Standards (UFAS) ; Americans with Disability Act (ADA)-accessible; e.g., parking lots, trails, pathways, ramps, picnic and camping areas, restrooms, boating facilities (docks, piers, gangways), fishing facilities, playgrounds, amphitheaters, exhibits, audiovisual programs, and wayside sites
accreting	to grow or to increase gradually
adaptation	adjustment to environmental conditions
adaptive management	<p>Focuses on learning and adapting, through partnerships of managers, scientists, and other stakeholders who learn together how to create and maintain sustainable ecosystems.</p> <p>Adaptive management helps science managers maintain flexibility in their decisions, knowing that uncertainties exist and provides managers the latitude to change direction will improve understanding of ecological systems to achieve management objectives is about taking action to improve progress towards desired outcomes.</p> <p>(Source: Williams, B. K., R. C. Szaro, and C. D. Shapiro. 2007. Adaptive Management: The U.S. Department of the Interior Technical Guide. Adaptive Management Working Group, U.S. Department of the Interior, Washington, DC.)</p>
advanced regeneration	tree seedlings or small saplings that develop in the understory prior to the removal of the overstory.
alternative	a reasonable way to fix an identified problem or satisfy a stated need [40 CFR 1500.2 (see “management alternative”)]
anaerobic	process occurring without oxygen
anuran	of or relating to frogs and toads
appropriate use	a proposed or existing use on a refuge that meets at least one of the following three conditions: (1) the use is a wildlife-dependent one; (2) the use contributes to fulfilling the refuge purpose(s), the System mission, or goals or objectives described in a refuge management plan approved after October 9, 1997, the date the National Wildlife Refuge System Improvement Act was signed into law; or (3) the use has been determined appropriate as specified in section 1.11 of that Act.
anadromous fish	fish that spend a large portion of their life cycle in the ocean and return to freshwater to breed; from the Greek, literally “up-running”
aquatic	growing in, living in, or dependent upon water
avian	of or having to do with birds

avifauna	all birds of a given region
barrier	any obstruction to fish passage, aquatic barrier
basin	the land surrounding and draining into a water body; see “watershed”
basal area	term used in forest management to measure tree density; determined by estimating the cross-sectional area at breast height (4.5 feet) of all trees in a given area; expressed in square feet per acre
best management practices	land management practices that produce desired results; usually used to describe forestry or agricultural practices effective in reducing non-point source pollution, like reseeded skidder trails or not storing manure in a flood plain.
biological diversity or biodiversity	the variety of life and its processes and includes the variety of living organisms, the genetic differences among them, and the communities and ecosystems in which they occur
biological integrity	biotic composition, structure, and functioning at genetic, organism, and community levels comparable with historic conditions, including the natural biological processes that shape genomes, organisms and communities
biodiversity conservation	the goal of conservation biology, which is to retain indefinitely as much of the earth’s biodiversity as possible, with emphasis on biotic elements most vulnerable to human impacts
biomass	the total mass or amount of living organisms in a particular area or volume
biota	the plant and animal life of a region
breakwater	a barrier protecting a harbor or shore from the impact of waves
breeding habitat	habitat used by migratory birds or other animals during the breeding season
buffer zones	land bordering and protecting critical habitats or water bodies by reducing runoff and nonpoint source pollution loading; areas created or sustained to lessen the negative effects of land development on animals, plants, and their habitats
candidate species	plants and animals for which the U.S. Fish and Wildlife Service (FWS) has sufficient information on their biological status and threats to propose them as endangered or threatened under the Endangered Species Act (ESA), but for which development of a proposed listing regulation is precluded by other higher priority listing activities (Source: http://www.fws.gov/endangered/factsheets/candidate_species.pdf)
canopy	the layer of foliage formed by the crowns of trees in a stand. For stands with trees of different heights, foresters often distinguish among the upper, middle and lower canopy layers. These represent foliage on tall, medium, and short trees. The uppermost layers are called the overstory.
carbon sequestration	process through which carbon dioxide is removed from the atmosphere, for example in forests through the process of photosynthesis. During this process, carbon dioxide is taken up through plants’ leaves and incorporated into the plants’ woody biomass

carbon sink	occurs when carbon sequestration is greater than the amount of carbon released over a given period of time
census-designated place	is a type of place (a concentration of population) identified by the United States Census Bureau for statistical purposes
community	the locality in which a group of people resides and shares the same government
community type	a particular assemblage of plants and animals, named for its dominant characteristic
compatible use	“a wildlife-dependent recreational use or any other use of a refuge that, in the sound professional judgment of the Director, will not materially interfere with or detract from the fulfillment of the mission of the System or the purposes of the refuge.”—National Wildlife Refuge System Improvement Act of 1997 [Public Law 105-57; 111 Stat. 1253]
compatibility determination	a required determination for wildlife-dependent recreational uses or any other public uses of a refuge
Comprehensive Conservation Plan	mandated by the 1997 Refuge Improvement Act, a document that provides a description of the desired future conditions and long-range guidance for the project leader to accomplish purposes of the refuge system and the refuge. CCPs establish management direction to achieve refuge purposes. [P.L. 105-57; FWS Manual 602 FW 1.4]
concern	see “issue”
conifer	a tree or shrub in the phylum Gymnospermae whose seeds are borne in woody cones. There are 500–600 species of living conifers (Norse 1990)
connectivity	community occurrences and reserves have permeable boundaries and thus are subject to inflows and outflows from the surrounding landscape. Connectivity in the selection and design of nature reserves relates to the ability of species to move across the landscape to meet basic habitat requirements. Natural connecting features within the ecoregion may include river channels, riparian corridors, ridgelines, or migratory pathways.
conservation	managing natural resources to prevent loss or waste [N.b. Management actions may include preservation, restoration, and enhancement.]
conservation corridor	connections between suitable habitat that allow passage of plant or animal species
conservation easement	a non-possessory interest in real property owned by another imposing limitations or affirmative obligations with the purpose of returning or protecting the property’s conservation values.
conservation status	assessment of the status of ecological processes and of the viability of species or populations in an ecoregion.
consultation	a type of stakeholder involvement in which decision makers ask stakeholders to comment on proposed decisions or actions.

cooperative agreement	a usually long-term habitat protection action, which can be modified by either party, in which no property rights are acquired. Lands under a cooperative agreement do not necessarily become part of the National Wildlife Refuge System
critical habitat	according to U.S. Federal law, the ecosystems upon which endangered and threatened species depend; Specific geographic areas, whether occupied by a listed species or not, that are essential for its conservation and that have been formally designated by rule published in the Federal Register.
cultural resource inventory	<p>a professional study to locate and evaluate evidence of cultural resources within a defined geographic area</p> <p>[n.b. Various levels of inventories may include background literature searches, comprehensive field examinations to identify all exposed physical manifestations of cultural resources, or sample inventories for projecting site distribution and density over a larger area. Evaluating identified cultural resources to determine their eligibility for the National Register follows the criteria in 36 CFR 60.4 (cf. FWS Manual 614 FW 1.7).]</p>
cultural resource overview	<p>a comprehensive document prepared for a field office that discusses, among other things, project prehistory and cultural history, the nature and extent of known cultural resources, previous research, management objectives, resource management conflicts or issues, and a general statement of how program objectives should be met and conflicts resolved</p> <p>[An overview should reference or incorporate information from a field offices background or literature search described in section VIII of the Cultural Resource Management Handbook (FWS Manual 614 FW 1.7).]</p>
database	a collection of data arranged for ease and speed of analysis and retrieval, usually computerized
dbh	diameter at breast height; the diameter of the stem of tree measured at breast height (usually 4.5 feet above the ground); commonly used by foresters to describe tree size.
defoliator	an agent that damages trees by destroying leaves or needles
degradation	the loss of native species and processes due to human activities such that only certain components of the original biodiversity persist, often including significantly altered natural communities
designated wilderness area	an area designated by Congress as part of the National Wilderness Preservation System [FWS Manual 610 FW 1.5 (draft)]
desired future condition	the qualities of an ecosystem or its components that an organization seeks to develop through its decisions and actions.
disturbance	any relatively discrete event in time that disrupts ecosystem, community, or population structure and changes resources, substrate availability, or the physical environment

donation	a citizen or group may wish to give land or interests in land to the Service for the benefit of wildlife. Aside from the cost factor, these acquisitions are no different than any other means of land acquisition. Gifts and donations have the same planning requirements as purchases.
easement	<p>a non-possessory interest in real property that permits the holder to use another's land for a specified purpose. It may also impose limitations or affirmative obligations on the holder of the land subject to the easement. An agreement by which landowners give up or sell one of the rights on their property</p> <p>[E.g., landowners may donate rights-of-way across their properties to allow community members access to a river (see "conservation easement").]</p>
ecological integrity	native species populations in their historic variety and numbers naturally interacting in naturally structured biotic communities. For communities, integrity is governed by demographics of component species, intactness of landscape-level ecological processes (e.g., natural fire regime), and intactness of internal community processes (e.g., pollination).
natural processes	a complex mix of interactions among animals, plants, and their environment that ensures maintenance of an ecosystem's full range of biodiversity. Examples include population and predator-prey dynamics, pollination and seed dispersal, nutrient cycling, migration, and dispersal
ecological system	Dynamic assemblages of communities that occur together on the landscape at some spatial scale of resolution, are tied together by similar ecological processes, and form a cohesive, distinguishable unit on the ground. Examples are spruce-fir forest, Great Lakes dune and swale complex, Mojave desert riparian shrublands.
ecoregion	a territory defined by a combination of biological, social, and geographic criteria, rather than geopolitical considerations; generally, a system of related, interconnected ecosystems.
ecosystem	a natural community of organisms interacting with its physical environment, regarded as a unit
ecosystem service	a benefit or service provided free by an ecosystem or by the environment, such as clean water, flood mitigation, or groundwater recharge
embayment	a bay or baylike formation
emergent wetland	wetlands dominated by erect, rooted, herbaceous plants
endangered species	a Federal- or State-listed protected species in danger of extinction throughout all or a significant portion of its range
environment	the sum total of all biological, chemical and physical factors to which organisms are exposed
environmental education	curriculum-based education aimed at producing a citizenry that is knowledgeable about the biophysical environment and its associated problems, aware of how to help solve those problems, and motivated to work toward solving them

environmental health	the composition, structure, and functioning of soil, water, air, and other abiotic features comparable with historic conditions, including the natural abiotic processes that shape the environment
Environmental Assessment	(EA) a public document that discusses the purpose and need for an action, its alternatives, and provides sufficient evidence and analysis of its impacts to determine whether to prepare an environmental impact statement or a finding of no significant impact (q.v.) [cf. 40 CFR 1508.9]
Environmental Impact Statement	(EIS) a detailed, written analysis of the environmental impacts of a proposed action, adverse effects of the project that cannot be avoided, alternative courses of action, short-term uses of the environment versus the maintenance and enhancement of long-term productivity, and any irreversible and irretrievable commitment of resources [cf. 40 CFR 1508.11]
evaluation	examination of how an organization's plans and actions have turned out — and adjusting them for the future.
even-aged	a stand having one age class of trees
exacerbate	to make more severe or harsh
extinction	the termination of any lineage of organisms, from subspecies to species and higher taxonomic categories from genera to phyla. Extinction can be local, in which one or more populations of a species or other unit vanish but others survive elsewhere, or total (global), in which all the populations vanish (Wilson 1992)
extirpated	status of a species or population that has completely vanished from a given area but that continues to exist in some other location
exotic species	a species that is not native to an area and has been introduced intentionally or unintentionally by humans; not all exotics become successfully established
fauna	all animal life associated with a given habitat, country, area or period
Federal land	public land owned by the Federal Government, including national forests, national parks, and national wildlife refuges
federal-listed species	a species listed either as endangered, threatened, or a species at risk (formerly, a “candidate species”) under the Endangered Species Act of 1973, as amended
fee-title acquisition	the acquisition of most or all of the rights to a tract of land; a total transfer of property rights with the formal conveyance of a title. While a fee-title acquisition involves most rights to a property, certain rights may be reserved or not purchased, including water rights, mineral rights, or use reservation (e.g., the ability to continue using the land for a specified time period, such as the remainder of the owner's life).
Finding of No Significant Impact	(FONSI) supported by an environmental assessment, a document that briefly presents why a Federal action will have no significant effect on the human environment, and for which an environmental impact statement, therefore, will not be prepared [40 CFR 1508.13]

fire management	All activities related to the management of wildland fires
fire regime	the characteristic frequency, intensity, and spatial distribution of natural fires within a given ecoregion or habitat
fish passage project	providing a safe passage for fish around a barrier in the upstream or downstream direction
flora	all the plants found in a particular place
floodplain	flat or nearly flat land that may be submerged by floodwaters; a plain built up or in the process of being built up by stream deposition
flyway	any one of several established migration routes of birds
focal species	a species that is indicative of particular conditions in a system (ranging from natural to degraded) and used as a surrogate measure for other species of particular conditions. An element of biodiversity selected as a focus for conservation planning or action. The two principal types of targets in Conservancy planning projects are species and ecological communities.
focus areas	see “special focus areas”
forested land	land dominated by trees [For impacts analysis in CCP's, we assume all forested land has the potential for occasional harvesting; we assume forested land owned by timber companies is harvested on a more intensive, regular schedule.]
fragmentation	the disruption of extensive habitats into isolated and small patches. Fragmentation has two negative components for biota: the loss of total habitat area; and, the creation of smaller, more isolated patches of habitat remaining.
geographic information system	(GIS) a computerized system to compile, store, analyze and display geographically referenced information [E.g., GIS can overlay multiple sets of information on the distribution of a variety of biological and physical features.]
groundwater	water in the ground that is in the zone of saturation, from which wells and springs and groundwater runoff are supplied
habitat fragmentation	the breaking up of a specific habitat into smaller, unconnected areas [N.b. A habitat area that is too small may not provide enough space to maintain a breeding population of the species in question.]
habitat conservation	protecting an animal or plant habitat to ensure that the use of that habitat by the animal or plant is not altered or reduced
habitat	The place or type of site where species and species assemblages are typically found and/or successfully reproduce. [N.b. An organism's habitat must provide all of the basic requirements for life, and should be free of harmful contaminants.]

head-of-tide	the farthest point upstream where a river is affected by tidal fluctuations
historic conditions	the composition, structure and functioning of ecosystems resulting from natural processes that we believe, based on sound professional judgement, were present prior to substantial human-related changes to the landscape
hydrologic or flow regime	characteristic fluctuations in river flows
hydrology	the science of waters of the earth: their occurrences, distributions, and circulations; their physical and chemical properties; and their reactions with the environment, including living beings
hydrolysis	decomposition of a chemical compound by reaction with water
impoundment	a body of water, such as a pond, confined by a dam, dike, floodgate, or other barrier, which is used to collect and store water for future use
indicator species	a species used as a gauge for the condition of a particular habitat, community, or ecosystem. A characteristic or surrogate species for a community or ecosystem
indigenous	native to an area
indigenous species	a species that, other than a result as an introduction, historically occurred or currently occurs in a particular ecosystem
initial attack	An aggressive action to put a fire out consistent with firefighter and public safety, and the values being protected.
interjurisdictional fish	populations of fish that are managed by two or more States or national or tribal governments because of the scope of their geographic distributions or migrations
interpretive facilities	structures that provide information about an event, place, or thing by a variety of means, including printed, audiovisual, or multimedia materials [E.g., kiosks that offer printed materials and audiovisuals, signs, and trail heads.]
interpretive materials	any tool used to provide or clarify information, explain events or things, or increase awareness and understanding of the events or things [E.g., printed materials like brochures, maps or curriculum materials; audio/visual materials like video and audio tapes, films, or slides; and, interactive multimedia materials, CD-ROM or other computer technology.]
interpretive materials projects	any cooperative venture that combines financial and staff resources to design, develop, and use tools for increasing the awareness and understanding of events or things related to a refuge
introduced invasive species	non-native species that have been introduced into an area and, because of their aggressive growth and lack of natural predators, displace native species
invasive species	an alien species whose introduction causes or is likely to cause economic or environmental harm or harm to human health

inventory	a list of all the assets and liabilities of an organization, including physical, financial, personnel, and procedural aspects.
invertebrate	any animal lacking a backbone or bony segment that encloses the central nerve cord
issue	<p>any unsettled matter that requires a management decision</p> <p>[E.g., a Service initiative, an opportunity, a management problem, a threat to the resources of the unit, a conflict in uses, a public concern, or the presence of an undesirable resource condition.]</p> <p>[N.b. A CCP should document, describe, and analyze issues even if they cannot be resolved during the planning process (FWS Manual 602 FW 1.4).]</p>
landform	the physical shape of the land reflecting geologic structure and processes of geomorphology that have sculpted the structure
landscape	A heterogeneous land area composed of a cluster of interacting ecosystems that are repeated in similar form throughout.
late-successional	species, assemblages, structures, and processes associated with mature natural communities that have not experienced significant disturbance for a long time
limiting factor	an environmental limitation that prevents further population growth
living shorelines	Living Shorelines are restored shorelines that use nature-based techniques such as marsh plantings, beach nourishment, and low profile oyster reefs, breakwaters and sills. In addition to protecting property from erosion, living shorelines provide habitat for fish, birds and other wildlife. Like undisturbed natural shorelines, they also protect water quality by trapping excess nutrients and sediment.
local agencies	generally, municipal governments, regional planning commissions, or conservation groups
long-term protection	mechanisms like fee title acquisition, conservation easements, or binding agreements with landowners that ensure land use and land management practices will remain compatible with maintaining species populations over the long term
macroinvertebrates	invertebrates large enough to be seen with the naked eye (e.g., most aquatic insects, snails, and amphipods)
macrophytes	a macroscopic plant in an aquatic environment
management alternative	a set of objectives and the strategies needed to accomplish each objective [FWS Manual 602 FW 1.4]
management concern	see “issue” and “migratory nongame birds of management concern”

management opportunity	see “issue”
management plan	<p>a plan that guides future land management practices on a tract</p> <p>[N.b. In the context of an environmental impact statement, management plans may be designed to produce additional wildlife habitat along with primary products like timber or agricultural crops (see “cooperative agreement”).]</p>
management strategy	<p>a general approach to meeting unit objectives</p> <p>[N.b. A strategy may be broad, or it may be detailed enough to guide implementation through specific actions, tasks, and projects (FWS Manual 602 FW 1.4).]</p>
marshlands	areas interspersed with open water, emergent vegetation (hydrophytes), and terrestrial vegetation (phreatophytes).
migratory nongame birds of management concern	species of nongame birds that (a) are believed to have undergone significant population declines; (b) have small or restricted populations; or (c) are dependent upon restricted or vulnerable habitats
mission statement	a succinct statement of the purpose for which the unit was established; its reason for being
mitigation	<p>actions to compensate for the negative effects of a particular project</p> <p>[E.g., wetland mitigation usually restores or enhances a previously damaged wetland or creates a new wetland.]</p>
mosaic	an interconnected patchwork of distinct vegetation types.
National Environmental Policy Act of 1969	<p>(NEPA) requires all Federal agencies to examine the environmental impacts of their actions, incorporate environmental information, and use public participation in planning and implementing environmental actions</p> <p>[Federal agencies must integrate NEPA with other planning requirements, and prepare appropriate NEPA documents to facilitate better environmental decision-making (cf. 40 CFR 1500).]</p>
National Wildlife Refuge System	(Refuge System) all lands and waters and interests therein administered by the Service as wildlife refuges, wildlife ranges, wildlife management areas, waterfowl production areas, and other areas managed to preserve a national network for the conservation and management of fish, wildlife and plant resources of the United States, for the benefit of present and future generations (National Wildlife Refuge System Improvement Act, 16 USC 668dd).
native	a species that, other than as a result of an introduction, historically occurred or currently occurs in a particular ecosystem
native plant	a plant that has grown in the region since the last glaciation, and occurred before European settlement
natural processes	a complex mix of interactions among animals, plants, and their environment that ensures maintenance of an ecosystem’s full range of biodiversity. Examples include population and predator-prey dynamics, pollination and seed dispersal, nutrient cycling, migration, and dispersal

niche	the specific part or smallest unit of a habitat occupied by an organism
Neotropical migrant	birds, bats, or invertebrates that seasonally migrate between the Nearctic and Neotropics
non-consumptive, wildlife-oriented recreation	wildlife observation and photography and environmental education and interpretation (see “wildlife-oriented recreation”)
non-native species	see “exotic species.”
non-point source pollution	a diffuse form of water quality degradation in which wastes are not released at one specific, identifiable point but from a number of points that are spread out and difficult to identify and control (Eckhart 1998)
nonforested wetlands	wetlands dominated by shrubs or emergent vegetation
nonpoint source	a diffuse form of water quality degradation produced by erosion of land that causes sedimentation of streams, eutrophication from nutrients and pesticides used in agricultural and silvicultural practices, and acid rain resulting from burning fuels that contain sulfur (Lotspeich and Platts 1982)
Notice of Intent	(NOI) an announcement we publish in the Federal Register that we will prepare and review an environmental impact statement [40 CFR 1508.22]
objective	see “unit objective”
oligohaline	Low salinity; salinity of 0.5 to 5 parts per thousand
other-than-sight materials	Interpretive materials accessible by the visually impaired refuge visitor
outdoor education	educational activities that take place in an outdoor setting
palustrine forested wetlands	Dominated by trees, include wooded swamps and low-lying hardwood forests near rivers. Sixty-eight percent of the wetlands in the Chesapeake Bay watershed are forested. <i>Source: Chesapeake Bay Program http://www.chesapeakebay.net/wetlds1.htm</i>
palustrine wetlands	palustrine wetlands includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all tidal wetlands where salinity due to ocean-derived salts is below 0.5 ppt
partnership	a contract or agreement among two or more individuals, groups of individuals, organizations, or agencies, in which each agrees to furnish a part of the capital or some service in kind (e.g., labor) for a mutually beneficial enterprise
payment in lieu of taxes	see Revenue Sharing Act of 1935, Chapter One, Legal Context
phenology	the study of periodic plant and animal life cycle events and how these are influenced by seasonal and interannual variations in climate

photolysis	chemical process by which molecules are broken down into smaller units through the absorption of light
physiographic	relating to physical geography
PM_{2.5}; PM₁₀	PM_{2.5} particles are air pollutants with a diameter of 2.5 micrometers or less, small enough to invade even the smallest airways; PM₁₀ - Particles 10 micrometers or less in size (smaller than the diameter of a human hair).
point source	a source of pollution that involves discharge of waste from an identifiable point, such as a smokestack or sewage-treatment plant (Eckhardt, 1998)
population	an interbreeding group of plants or animals. The entire group of organisms of one species.
population monitoring	assessing the characteristics of populations to ascertain their status and establish trends on their abundance, condition, distribution, or other characteristics
prescribed fire	the application of fire to wildland fuels, either by natural or intentional ignition, to achieve identified land use objectives [FWS Manual 621 FW 1.7] Synonyms: prescribed burn and controlled burn.
priority general public use	a compatible wildlife-dependent recreational use of a refuge involving hunting, fishing, wildlife observation and photography, or environmental education and interpretation
private land	land owned by a private individual or group or non-government organization
private organization	any non-government organization
promotory	a high point of land or rock projecting into a body of water; a prominent mass of land overlooking or projecting into a lowland
proposed wilderness	an area of the Refuge System that the Secretary of the Interior has recommended to the President for inclusion in the National Wilderness Preservation System
public	individuals, organizations, and non-government groups; officials of Federal, State, and local government agencies; Native American tribes, and foreign nations—includes anyone outside the core planning team, those who may or may not have indicated an interest in the issues, and those who do or do not realize that our decisions may affect them
public involvement	offering an opportunity to interested individuals and organizations whom our actions or policies may affect to become informed; soliciting their opinions. We thoroughly study public input, and give it thoughtful consideration in shaping decisions about managing refuges.
public land	land owned by the local, State, or Federal Government
rare species	species identified for special management emphasis because of their uncommon occurrence within a watershed

recharge	refers to water entering an underground aquifer through faults, fractures, or direct absorption
recommended wilderness	areas studied and found suitable for wilderness designation by both the Director (FWS) and Secretary (DOI), and recommended by the President to Congress for inclusion in the National Wilderness System [FWS Manual 610 FW 1.5 (draft)]
refuge goals	“descriptive, open-ended, and often broad statements of desired future conditions that convey a purpose but do not define measurable units.” (Writing Refuge Management Goals and Objectives: A Handbook, FWS January 2004)
refuge purposes	“the terms ‘purposes of the refuge’ and ‘purposes of each refuge’ mean the purposes specified in or derived from the law, proclamation, executive order, agreement, public land order, donation document, or administrative memorandum establishing, authorizing, or expanding a refuge, refuge unit, or refuge subunit.” (National Wildlife Refuge System Improvement Act of 1997)
refuge lands	lands in which the Service holds full interest in fee title or partial interest like an easement
regenerating	establishing a new age class. Silviculture does this in a way that controls the species composition, seedling density, and other characteristics consistent with the landowner’s objectives.
restoration	management of a disturbed or degraded habitat that results in the recovery of its original state [E.g., restoration may involve planting native grasses and forbs, removing shrubs, prescribed burning, or reestablishing habitat for native plants and animals on degraded grassland.]
riparian	referring to the interface between freshwater habitats and the terrestrial landscape
riparian forested land	forested land along a stream or river
riparian habitat	habitat along the banks of a stream or river [see note above]
riverine	within the active channel of a river or stream
riverine wetlands	generally, all the wetlands and deepwater habitats occurring within a freshwater river channel not dominated by trees, shrubs, or persistent emergents
rotation	the period of time from establishment of an even-aged stand until its maturity
runoff	water from rain, melted snow, or agricultural or landscape irrigation that flows over a land surface into a water body (see “urban runoff”)
scale	the magnitude of a region or process. Refers to both spatial size—for example, a (relatively small-scale) patch or a (relatively large-scale) landscape; and a temporal rate—for example, (relatively rapid) ecological succession or (relatively slow) evolutionary speciation

selective removal/ selective cutting	The silvicultural system used to regenerate and maintain uneven-aged stands. Selection cuttings are used to remove individual or small groups of mature trees to regenerate a new cohort, as well as to thin the immature age classes to promote their growth and improve their quality.
Service presence	Service programs and facilities that it directs or shares with other organizations; public awareness of the Service as a sole or cooperative provider of programs and facilities
shrublands	habitats dominated by various species of shrubs, often with many grasses and forbs
siltation	to fill, cover, or obstruct with silt or mud
silviculture	tending and regenerating forest stands to realize sought after benefits and sustain them over time
site improvement	any activity that changes the condition of an existing site to better interpret events, places, or things related to a refuge [E.g., improving safety and access, replacing non-native with native plants, refurbishing footbridges and trailways, and renovating or expanding exhibits.]
small patch	communities that form small, discrete areas of vegetation cover. Individual occurrences of this community type typically range in size from 1 to 50 hectares. Small patch communities occur in very specific ecological settings, such as on specialized landform types or in unusual microhabitats. The specialized conditions of small patch communities, however, are often dependent on the maintenance of ecological processes in the surrounding matrix and large patch communities. In many ecoregions, small patch communities contain a is proportionately large percentage of the total flora, and also support a specific and restricted set of associated fauna (e.g., invertebrates or herpetofauna) dependent on specialized conditions.
source population	a population in a high-quality habitat where the birth rate greatly exceeds the death rate, and the excess individuals emigrate
special focus area	an area of high biological value [N.b. We normally direct most of our resources to SFA's that were delineated because of the presence of Federal-listed endangered and threatened species, species at risk (formerly, "candidate species"), rare species, concentrations of migrating or wintering waterfowl, or shorebird stopover habitat, their importance as migrant landbird stopover or breeding habitat; the presence of unique or rare communities; or the presence of important fish habitat.]
species	the basic category of biological classification intended to designate a single kind of animal or plant. Any variation among the individuals may be regarded as not affecting the essential sameness which distinguishes them from all other organisms.
species assemblage	the combination of particular species that occur together in a specific location and have a reasonable opportunity to interact with one another

species of concern	an informal term referring to a species that might be in need of conservation action. This may range from a need for periodic monitoring of populations and threats to the species and its habitat, to the necessity for listing as threatened or endangered under the Endangered Species Act. Such species receive no legal protection and use of the term does not necessarily imply that a species will eventually be proposed for listing (Source: http://www.fws.gov/endangered/glossary.html).
species diversity	usually synonymous with “species richness,” but may also include the proportional distribution of species
species richness	a simple measure of species diversity calculated as the total number of species in a habitat or community (Fiedler and Jain 1992)
stand	an area of trees (or other vegetation) with a common set of conditions (e.g., based on age, density, species composition, or other features) that allow a single management treatment throughout
state agencies	natural resource agencies of State governments
state land	State-owned public land
state-listed species	see “Federal-listed species”
step-down management plan	a plan for dealing with specific refuge management subjects, strategies, and schedules, e.g., cropland, wilderness, and fire [FWS Manual 602 FW 1.4]
stopover habitat/sites/areas	habitat where birds rest and feed during migration
stormwater	A term used to describe water runoff generated when precipitation from rain and snowmelt events flows over land or impervious surfaces
strategy	a specific action, tool, technique, or combination of actions, tools, and techniques for meeting unit objectives
strategic management	the continual process of inventorying, choosing, implementing, and evaluating what an organization should be doing.
structure	the horizontal and vertical arrangement of trees and other vegetation having different sizes, resulting in different degrees of canopy layering, tree heights, and diameters within a stand.
succession	the natural, sequential change of species composition of a community in a given area
surface water	all waters whose surface is naturally exposed to the atmosphere, or wells or other collectors directly influenced by surface water
terrestrial	living on land
territory	an area over which an animal or group of animals establishes jurisdiction

thinning	reducing the density of trees in a stand primarily to improve the growth and condition of residual trees and prevent mortality. The term describes treatments in immature even-aged stands that do not attempt to establish regeneration.
threatened species	a Federal-listed, protected species that is likely to become an endangered species in all or a significant portion of its range
tributary	a stream or river that flows into a larger stream, river, or lake, feeding it water
trust resource	<p>a resource that the Government holds in trust for the people through law or administrative act</p> <p>[N.b. A Federal trust resource is one for which responsibility is given wholly or in part to the Federal Government by law or administrative act. Generally, Federal trust resources are nationally or internationally important no matter where they occur, like endangered species or migratory birds and fish that regularly move across state lines. They also include cultural resources protected by Federal historic preservation laws, and nationally important or threatened habitats, notably wetlands, navigable waters, and public lands like state parks and national wildlife refuges.]</p>
trust responsibility	In the federal government, a special duty required of agencies to hold and manage lands, resources, and funds on behalf of Native American tribes.
turbidity	refers to the extent to which light penetrates a body of water. Turbid waters are those that do not generally support net growth of photosynthetic organisms
understory	the lower layer of vegetation in a stand, which may include short trees, shrubs, and herbaceous plants
uneven-aged	a stand having three or more age classes of trees with distinctly different ages
upgradient	against the direction that groundwater flows; similar to “upstream” for surface water
upland	dry ground (i.e., other than wetlands)
use of wildland fire	Management of either wildfire or prescribed fire to meet resource objectives specified in Land/Resource Management Plans. Synonym: Fire Use.
vernal pool	are a type of seasonal wetland formed by isolated depressions in the landscape that hold water in the winter and spring and are usually dry by midsummer or fall. There are no permanent surface connections to flowing water. Water sources include rainfall, snowmelt and elevated water tables. Although fish are usually absent, vernal pools in riparian floodplains may contain fish periodically. vernal pools are important breeding sites for amphibians. The woody debris and emergent grasses provide attachment sites for egg masses. (source: Mitchell, J.C., A.R. Breisch, and K.A. Buhlmann. 2006. Habitat Management Guidelines for Amphibians and Reptiles of the Northeastern U.S. Partners in Amphibian and Reptile Conservation, Technical Publication HMG-3, Montgomery, Alabama, 108 pp)
vision statement	a concise statement of what the unit could achieve in the next 10 to 15 years
volatilization	the process whereby a dissolved sample is vaporised

watershed	the geographic area within which water drains into a particular river, stream, or body of water. A watershed includes both the land and the body of water into which the land drains.
wetlands	lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. These areas are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted to life in saturated soil conditions. “Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water.”—Cowardin et al 1979
wilderness study areas	lands and waters identified by inventory as meeting the definition of wilderness and being evaluated for a recommendation they be included in the Wilderness System (see “recommended wilderness”) [N.b. A wilderness study area must meet these criteria: <ol style="list-style-type: none"> 1. generally appears to have been affected primarily by the forces of nature, with the imprint of man’s work substantially unnoticeable; 2. has outstanding opportunities for solitude or a primitive and unconfined type of recreation; 3. has at least 5,000 contiguous, roadless acres, or sufficient size to make practicable its preservation and use in an unimpaired condition. (FWS Manual 610 FW 1.5 (draft)).]
wilderness	see “designated wilderness”
wildfire	a free-burning fire requiring a suppression response; all fire other than prescribed fire that occurs on wildlands [FWS Manual 621 FW 1.7]. An unplanned ignition caused by lightning, volcanoes, unauthorized, and accidental human-caused actions and escaped prescribed fires.
wildland fire	A general term describing any non-structure fire that occurs in the vegetation and / or natural fuels. Includes both prescribed fire and wildfire.
wildland urban interface	The line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels.
wildlife-dependent recreational use	a use of a national wildlife refuge involving hunting, fishing, wildlife observation and photography, or environmental education and interpretation (National Wildlife Refuge System Administration Act of 1966).
wildlife management	manipulating wildlife populations, either directly by regulating the numbers, ages, and sex ratios harvested, or indirectly by providing favorable habitat conditions and alleviating limiting factors
wildlife-oriented recreation	recreational activities in which wildlife is the focus of the experience [“The terms ‘wildlife-dependent recreation’ and ‘wildlife-dependent recreational use’ mean a use of a refuge involving hunting, fishing, wildlife observation and photography, or environmental education and interpretation.”—National Wildlife Refuge System Improvement Act of 1997]

Acronyms and Abbreviations

AASHTO	American Association of State Highway and Transportation Officials
ACJV	Atlantic Coast Joint Venture
ADA	Americans with Disabilities Act
AHWP	Annual Habitat Work Plan
APHIS	Animal and Plant Health Inspection Service (USDA)
AQI	Air Quality Index
ARPA	Archaeological Resources Protection Act
ASMFC	Atlantic States Marine Fisheries Commission
ATV	All-Terrain Vehicle
BCC	Birds of Conservation Concern
BCR	Bird Conservation Region
BIDEH	Biological Integrity, Diversity, and Environmental Health
BLM	Bureau of Land Management
BMPs	Best Management Practices
CARE	Cooperative Alliance for Refuge Enhancement
CCP	Comprehensive Conservation Plan
CDP	Census-designated Place
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CWD	Chronic Wasting Disease
DOI	United States Department of the Interior
EA	Environmental Assessment
EDU	Ecological Drainage Unit
EIS	Environmental Impact Statement
EP	Eastern Population
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FIDS	Forest Interior Dwelling Species
FHWA	Federal Highway Administration
FOPRR	Friends of Potomac River Refuges
FONSI	Finding of No Significant Impact

FTE	Full-time Equivalency
FWS	United States Fish and Wildlife Service
GCN	Greatest Conservation Need
GIS	Geographic Information System
GPS	Global Positioning System
HMP	Habitat Management Plan
HQ	Hazard Quotient
IBA	Important Bird Area
IBP	Institute for Bird Populations
IMP	Inventory and Monitoring Plan
IPM	Integrated Pest Management Plan
IPCC	Intergovernmental Panel on Climate Change
LOC	Level of Concern
MANEM	Mid-Atlantic/New England/Maritime
MAPS	Monitoring Avian Production and Survivorship
MBTA	Migratory Bird Treaty Act
MDDNR	Maryland Department of Natural Resources
MHT	Mean High Tide
MOA/MOU	Memorandum of Agreement/Understanding
NABCI	North American Bird Conservation Initiative
NAWCP	North American Waterbird Conservation Plan
NAWMP	North American Waterfowl Management Plan
NEPA	National Environmental Policy Act
NGO	Non-Governmental Organization
NHCR	National State Agency Herpetological Conservation Report
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NOA	Notice of Availability
NOI	Notice of Intent
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NVRC	Northern Virginia Regional Commission

Acronyms and Abbreviations

NVRPA	Northern Virginia Regional Park Authority
NWPS	National Wilderness Preservation System
NWR	National Wildlife Refuge
NWRS	National Wildlife Refuge System
PARC	Partners in Amphibian and Reptile Conservation
PIF	Partners in Flight
PHNST	Potomac Heritage National Scenic Trail
PRFC	Potomac River Fisheries Commission
RONs	Refuge Operation Needs System
SAMMS	Service Asset Maintenance Management System
SAV	Submerged Aquatic Vegetation
SHPO	State Historic Preservation Office
SLAMM	Sea Level Affecting Marshes Model
SWG	State Wildlife Grant
TMDL	Total Maximum Daily Load
USDA	United States Department of Agriculture
USDA-FS	United States Department of Agriculture Forest Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VADCR	Virginia Department of Conservation and Recreation
VCN	Virginia Conservation Network
VDF	Virginia Department of Forestry
VDEQ	Virginia Department of Environmental Quality
VDGIF	Virginia Department of Game and Inland Fisheries
VDOT	Virginia Department of Transportation
VMRC	Virginia Marine Resources Commission
VRE	Virginia Railway Express
VSP	Visitor Services Plan
WAP	Virginia Wildlife Action Plan
WIA	Wilderness Inventory Area

WIMS	Weed Information Management System
WQA	Water Quality Analysis
WSA	Wilderness Study Area